

What is Claimed is:

1. A device for producing a high resolution photographic image of a scene, said device comprising:

- (a) a photographic imaging system;
- 5 (b) a micromirror array containing an array of micromirrors, each mirror being capable of tilting individually in at least two directions, said micromirror array being positioned with respect to the photographic imaging system so that each mirror of the micromirror array transfers a reflected pixel of the scene to be photographed to the photographic imaging system; and
- 10 (c) an assembly system which forms a high resolution image of the scene by mosaicing extracted color values from each reflected pixel from each mirror of the micromirror array into a high resolution image of the scene.

2. The device of claim 1 wherein the photographic imaging system comprises a digital camera or a video camera.

20 3. A method for producing a high resolution image of a scene comprising:

- (a) photographing reflected pixels from the micromirror array with the photographic imaging system of the device of claim 1;
- 25 (b) extracting relevant color values from each reflected pixel; and
- (c) assembling the extracted relevant color values into a high resolution image of the scene.